

ADAMS COUNTY WATER CONSERVANCY BOARD Application for Change/Transfer Record of Decision

For Ecology Use Only	
Received: E W E	
DEC 2 1 2004	
DEFARMENT OF ECOLOGY	
Reviewed by: Date Reviewed:	

	Date Re	vieweu	**************************************
Applicant: Phillips Ranch Corporation	Application Number: ADAM-04-03		
This record of decision was made by a majority of the be Conservancy Board held on December 13, 2004.	pard at an open public meeting of the Ad	ams County W	ater
Approval: The (board name) Water Conservancy Bottransfer described and conditioned within the report of edecision and report of examination to the Department of	xamination on December 13, 2004 and s		
Denial: The (board name) Water Conservancy Board described within the report of examination on (date report Department of Ecology for final review.			
Douglas Muscott, Chair Adams County Water Conservancy Board	Date: 2-13-04	Approve Deny Abstain Recuse Other	
Dennis Swinger, Secretary/Treasurer Adams County Water Conservancy Board	Date: 12-13-04	Approve Deny Abstain Recuse Other	
Chris Lyle, Board Representation Adams County Water Conservancy Board	Date: 12/13/2004	Approve Deny Abstain Recuse Other	

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Mailed to the Department of Ecology Eastern Regional Office of Ecology, and other interested parties on

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30; ALL WITHIN T. 16 N., R. 32 E.W.M.

PARCEL NO.

ADAMS COUNTY WATER CONSERVANCY BOARD polication for Change/Transfer

Application for Change/Transfer

Report of Examination

DEC 2 1 2004

TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON ECOLOG Surface Water Ground Water DATE APPLICATION RECEIVED WATER RIGHT DOCUMENT NUMBER (i.e., WATER RIGHT PRIORITY DATE BOARD-ASSIGNED CHANGE APPLICATION November 27, 1964 NUMBER ADAM-04-03 April 26, 2004 G3-01341C(A) Phillips Ranch Corporation ADDRESS (STREET) (CITY) (STATE) (ZIP CODE) P.O. Box 397 Lind 99341-0397 WA Add purpose Change point of diversion/withdrawal **Changes Proposed:** Change purpose Add point of diversion/withdrawal Change place of use Other (Temporary, Trust, Interties, etc.) SEPA The board has reviewed the provisions of the State Environmental Policy Act of 1971, Chapter 43.21C RCW and the SEPA rules, chapter 197-11 Not exempt Exempt WAC and has determined the application is: **DECISION HISTORICAL SUMMARY Existing Right (Tentative Determination)** MAXIMUM CUB FT/ SECOND MAXIMUM GAL/MINUTE MAXIMUM ACRE-FT/YR 1206 1553 1551 acre-feet per year, for seasonal irrigation of 1034 acres; and 2 acre-feet per year, for continuous domestic supply. SOURCE TRIBUTARY OF (IF SURFACE WATER) Three (3) wells T A POINT LOCATED: RCEL NO 1/4 SECTION TOWNSHIP N. RANGE E.W.M WRIA COUNTY. #1) **SWSW** SW 20 16 32 36 Adams #3) **SESW** NE 18 16 32 36 Adams #6) **NWNW** SW 30 32 16 36 Adams LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED 498 acres within Section 19; 268 acres within the W½ of Section 20; AND 268 acres within the N½ of Section

SECTION

TOWNSHIP N.

RANGE,

Proposed Use

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINU	MAXIMUM GAL/MINUTE MAXIMUM ACRE-FT/YR		TYPE OF USE, PE	USE, PERIOD OF USE		
	615	791		791 acre-feet per year, for seasonal irrigation of 527 acres			
HOURCE				TRIBUTARY OF	(IF SURFACE WATE	R)	
лх (6) wells							
AT A POINT LOCATED:							
PARCEL NO.	1/4	1/4	SECTION	TOWNSHIP N.	RANGE E.W.M	WRIA	COUNTY.
WHB 1		SW	13	17	31	41	Adams
WHB 2	SW	SE	11	17	31	41	Adams
WHB 3	SE	NW	14	17	31	41	Adams
N. Kent	NW	NE	34	17	31	41	Adams
WHB Proposed 5	SE	SE	25	17	31	41	Adams
WHB Proposed 6	NW	NW	25	17	31	41	Adams
LEGAL DESCRIPTION OF PRO	OPERTY ON WHICH W	ATER IS TO BE U	SED				
W½ and W½ E½ of Section 23; Section 25; W½SW¼ Section 34; ALL WITHIN T. 17 N., R. 31 E.W.M.							
PARCEL NO.	1/4	3/4		SECTION	TOW	'NSHIP N.	RANGE,

Board's Decision on the Application

AXIMUM CUB FT/ SECOND	MAXIMUM GAL	MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PI	TYPE OF USE, PERIOD OF USE			
	620	732 732 acre-feet per year, for seasonal irrigation of 488 acres				rrigation of 488 acres		
SOURCE	OURCE			TRIBUTARY OF	TRIBUTARY OF (IF SURFACE WATER)			
Six (6) wells								
AT A POINT LOCATED:								
PARCEL NO.	1/4	1/4	SECTION	TOWNSHIP N.	RANGE E.W.N	4 WRIA	COUNTY.	
WHB 1		SW	13	17	31	41	Adams	
WHB 2	SW	SE	11	17	31	41	Adams	
WHB 3	SE	NW	14	17	31	41	Adams	
N. Kent	NW	NE	34	17	31	41	Adams	
WHB Proposed 5	SE	SE	25	17	31	41	Adams	
WHB Proposed 6	NW	NW	25	17	31	41	Adams	
LEGAL DESCRIPTION OF PRO	OPERTY ON WHIC	H WATER IS	TO BE USED					
A portion of the V	$V \frac{1}{2}$ and the	ne W 1/2	of the E 1/2 of Se	c 23, not to e	xceed 289	acres.		
A portion of Sec 2	25, not to e	xceed 1	34 acres.					
A portion of the V	$V \frac{1}{2}$ of the	SW 1/4 (of Sec 34, not to e	exceed 65 acr	es.			
All within Tsp. 17	7 N Range	31 EWI	M .					
PARCEL NO.	1/4		1/4	SECTION	TO	WNSHIP N.	RANGE,	

DESCRIPTION OF PROPOSED WORKS

well #4) G3-01456C and two proposed wells, number 5, to be located at SE1/4SE1/4 Section 25, T. 17N, R. 31 E.W.M and, number 6 to be located at NW1/4NW1/4 Section 25, T. 17N, R. 31 E.W.M.

The distribution system consists of pumps, motors, panels, booster pumps, panels, mainline and numerous center pivot irrigation systems of various lengths, various control valves and electrical remote control system for operation and monitoring of pumps and center pivot system.

DEVELOPMENT SCHEDULE							
BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE					
Date which Ecology approves	Two years after date of approval	One additional year					
this transfer							

REPORT

See WAC 173-153-130 - The following sections may be expanded onto additional pages.

BACKGROUND



This report is submitted on behalf of Phillips Ranch Corporation, to provide information to the Water Board for its decision on the above three change applications. The report includes an estimate of transferable quantities, a description of the aquifer involved in the transfer, and a discussion of local pumping effects near the wells.

2. TRANSFER SUMMARY

The current water rights are located 12 miles southeast of Warden. The current supply wells are located on a southwest-northeast trending hill in an elevated area known as Kansas Prairie. The site is west of Providence Coulee and south of Lind Coulee.

The rights consist of three interrelated water right certificates which issued for a total of 4760 gallons per minute (gpm), 3195 acre-feet per year (af/yr) for irrigation of 1278 acres; together with small amounts for domestic and stockwater uses. The applicant requests a transfer of 1318 af/yr and 2090 gpm of water rights to a location about five miles north to northwesterly. Following transfer, the Warden Hutterian Brethren (WHB) will take ownership of the rights. At the new location the water is requested to be withdrawn from four existing wells, along with two proposed sites. The transfer request is for 527 acres of water rights, which will no longer be irrigated at the current site. The transfer is an "acre-for-acre" move of irrigation water rights.

Two summary documents from the application submittals provide additional details about the transfers. These are entitled "Summary of Requested Changes" and "Transfer Summary, Division of Water Rights". The water rights being transferred are embodied within three water right certificates; however they are interrelated rights and can best be evaluated as a group.

3. TENATIVE DETERMINATION

The Board's tentative determination as to the validity and quantification of the water right is based on historical water use information using Crop Duty Method, Electrical Use Method to determine flow and volume and flow meter readings. We have tentatively determined that the flowing amounts have been put to put to beneficial use under Change Application Number ADAM-04-03, Certificate G3-01341C(A): 972 s, 1115 gpm and 1116 acre-feet per year. We have tentatively determined that the following amounts have been put to beneficial use under Change Application Number ADAM-04-05, Certificate G3-24450C(A): 494 acres, 1435 gpm and 341 acre-feet per year. We have tentatively determined that the following amounts have been put to put to beneficial use under Change Application Number ADAM-04-04-04-05.

04. Certificate G3-01469C: 722 acres, 1850 gpm and 645 acre-feet per year.

The total tentatively determined values for the above three certificates are as follows: 1216 acres, 4400 gpm and 2102 acre-feet per year.

4. SEPA DETERMINATION

A SEPA application was submitted to Adams County Planning Director Loren Wiltse and a determination of non-significance was issued.

5. DESCRIPTION of PREVIOUS CHANGE DECISIONS

Certificate G3-01341C(A), Certificate G3-24450C(A) and Certificate G3-01469C incurred the following changes. In 1991 a review of beneficial use for the rights was done by the Department of Ecology. This resulted in relinquishment of part of each right. In 1996 another review of beneficial use was done by Ecology due to a sale and division of the water rights. A reduction in certificate quantities was done coincident with the division and issuance of the most recent superseding certificates. Since 1996, the lands covered by these water rights have continued to be farmed by Phillips Ranch.

6. COMMENTS AND PROTESTS

No protests from the public were received.

INVESTIGATION

There are no other known water rights associated with the current place of use and current points of withdrawal.

portion of each of the Phillips Ranch Corporation certificates, Certificate G3-01341C(A), Certificate G3-24450C(A) and Certificate G3-69C, will be transferred to the four existing WHB certificates, Certificate G3-21182C, Certificate G3-23919C, Certificate G3-21183C and Certificate G3-01456C and certificates for proposed points of withdrawal.

The combined rights will allow for more efficient management of the system.

1. REDUCTION IN WATER RIGHT

This water right was used on 1216 acres, a reduction of 62 acres compared to usage certified in 1996 (Tables 2, 4 and 7). The valid peak flow rate for each well is for Well 1 at 1800 gpm, Well 3 at 1400 gpm, and Well 6 at 1200 gpm for a total of 4400 gpm. This is a reduction of 360 gpm from the 1996 certified production of 4760 gpm. Based on sufficient cause for non-use during 2000-2003 (Table 9) there has been no relinquishment of the 4400 gpm flow rate.

The reduction in acres after 1996 is shown in Table 2. A reduction of 62 acres occurred after 1996.

Location	Fields/Partial Pivots	Total "Corner" Acres Before 1996	Total "Corner" Acres After 1996	Acre Reduction
Section 19	12+12+10	34 acres	14	20 acres less
Section 20 W½	16+8	24 acres	10	14 acres less
Section 30 N½	12+8+8	28 acres	0	28 acres less
TOTALS:		86 acres	24 acres	62 acres less

Table 2. Reduction in acres outside of main pivots before and after 1996.



hile not showing all irrigated fields, these cropping records give evidence of continued and significant beneficial use during this time period. As will be seen in the next table, cropping is similar for comparison purposes to 1998, which was the highest recent year of usage for which power records are available.

From 1997 forward, Phillips Ranch has cropping records for all irrigated pivots and fields. Pivot numbers 20-1, 20-3, 19-2, 19-4, 30-1 and 30-2 are subdivided into parts in order to show different cropping proportions within the pivots during some years.

Field	Acres	2003	2002	2001	2000	1999	1998	1997
18-2	122	Р	W	W	W	W	F (P trnsfr)	W
18-4	122	W	W	F	W	F	W	W
20-1 W	37.4	F	W	F	W	W	F	F
20-1 C	23.6	CRP	CRP	CRP	CRP	CRP	CRP	CRP
20-1 E	61	W	F	W	W	P	BG	BG
20-3 W	61	P	W	F	W	F	W	P
20-3 E	61	CRP	CRP	CRP	CRP	CRP	CRP	CRP
20-C	10	Asp	Asp	Asp	Asp	Asp	Asp	Asp
19-1	116	F	W	P	F (P trnsfr)	F (P trnsfr)	W	W
19-2 C	15.4	CRP	CRP	CRP	CRP	CRP	CRP	CRP
19-2 R	100.6	W	F	W	W	F	W	F
19-3	122	W	P	W	F	F (P trnsfr)	F (P trnsfr)	W
19-4 W	61	W	F	W	F	W	P	W
4 C	15.5	CRP	CRP	CRP	CRP	CRP	CRP	CRP
4 E	13.5	F	F	F	F	W	В	W
19-C	20	F	F	F	Asp	Asp	Asp	Asp
19-V	12	V	V	V	V	V	V	V
19-past	2	Past	Past	Past	Past	Past	Past	Past
30-1 C	5.1	CRP	CRP	CRP	CRP	CRP	W	CRP (P trnsfr)
30-1 R	114.9	W	W	P	W	W	W	F (P trnsfr)
30-2 W	60	F	F (Dry W)	W	F	W	F	W
30-2 E	60	F	W	W	Р	W	F	W
TOTAL:	1216 ac							

P=potatoes, (P trnsfr)=seasonal change with potato cropping, W=wheat, BG=bluegrass; past=pasture, Asp=asparagus, V=Vineyard, F=Fallow, CRP=enrolled in crop reserve program.

Table 4. Complete cropping history for years 1997-2003.

Use Estimate by Crop Duty Method

Based on acres and cropping, an estimate can be made of water use. The Washington Irrigation Guide (WAIG) references crop requirements as shown in Table 5, for the Lind station. Assuming an efficiency of 80% yields the predicted water duty given in the right hand columns.





Crop	Crop Reqm't	With 80% Application Efficiency (inches)	80% Application Efficiency (feet)		
Potatoes	29.6 in	37 in	3.1 ft		
Wheat	25.1 in	31 in	2.6 ft		
Pasture	39.1 in	49 in	4.1 ft		
Peas	18.9 in	24 in	2.0 ft		
Beans	23.5 in	29 in	2.4 ft		
Grapes	27.7 in	35 in	2.9 ft		

Table 5. WAIG Estimated Crop Requirements.

Although the WAIG estimates are useful for comparison purposes, information specific to the farm site is preferred where possible. Based on many years of experience and operation of the farm at this location, Phillips Ranch made estimates of approximate, typical crop duties, shown below in Table 6. Note that the water duties are less than WAIG estimates. In particular the wheat duty is significantly less due to the supplemental nature of wheat irrigation by Phillips Ranch.

Estimated Water Application (inches)	Estimated Water Application (feet)		
34 in	2.8 ft		
16 in	1.3 ft		
34 in	2.8 ft		
20 in	1.7 ft		
34 in	2.8 ft		
20 in	1.7 ft		
18 in	1.5 ft		
15 in	1.3 ft		
	(inches) 34 in 16 in 34 in 20 in 34 in 20 in 18 in		

Table 6. Water Duty Estimates by Phillips Ranch.

By combining crop acres (Table 4) with estimated water duties (Table 6), it is possible to estimate actual beneficial use for the farm. Table 7 summarizes cropping acres from Table 4.

Crop	Crop Acres by Year									
	2003	2002	2001	2000	1999	1998	1997			
Potatoes	183	122	230.9	176	299	305	181			
Wheat	581.5	633.3	586.6	618.9	468.8	519.6	676.5			
Asparagus	10	10	10	30	30	30	30			
BG/Past	2	2	2	2	2	63	63			
Vineyard	12	12	12	12	12	12	12			
Beans	0	0	0	0	0	13.5	0			
Fallow	306.9	316.1	253.9	256.5	283.6	157.4	138			
CRP	120.6	120.6	120.6	120.6	120.6	115.5	115.5			
TOTAL	1216	1216	1216	1216	1216	1216	1216			

Table 7. Crop Acres Summary 1997-2003.



Continued

Table 8 gives the estimated water use for the years 1997-2003 by the crop duty method. The estimated volumes are calculated by multiplying the crop acres of Table 7 by the respective water duties of Table 6 that were estimated by Phillips Ranch (more accurate duties than WAIG like 5). The totals may differ slightly from exact addition of columns due to rounding.

Crop	Water Duty [3] (inches)	Beneficial Use Estimate by Year and Crop, Volume in acre-feet						
		2003	2002	2001	2000	1999	1998	1997
Potatoes	34 in	519	346	654	499	847	864	513
Wheat	16 in	775	844	782	825	625	693	902
Asparagus	15 in	13	13	13	38	38	38	38
BG/Pasture	34 in	6	6	6	6	6	179	179
Vineyard	18 in	18	18	18	18	18	18	18
Beans	20 in	0	0	0	0	0	23	0
Fallow	0 in	0	0	0	0	0	0	0
CRP 1[1]	0 in	0	0	0	0	0	0	0
	TOTAL 1:	1330	1226	1473	1385	1533	1813	1649
CRP 2[2]	30 in	302	302	302	302	302	289	289
	TOTAL 2:	1632	1528	1774	1687	1835	2102	1938

Note [1] CRP 1 represents actual use on CRP acres, since they were not irrigated.

Note [2] CRP 2 represents the water right preserved on CRP acres, at a 30 inch (2.5 ft) duty.

Note [3] Water duty from Table 6, Phillips Ranch estimated duties.

Table 8. Beneficial Use Estimate by Crop Duty Method.

re are two "TOTAL" rows in Table 8. This is necessary to account for the water right that was not used, but still remains valid due to enrollment in CRP. Phillips Ranch farmed the CRP enrolled lands in rotation for potatoes prior to enrollment, which by one estimate would preserve the 34 inch water duty. On the other hand, the average allotment by water right certificates was for 30 inches on average. As a conservative estimate, 30 inches is used in Table 8 instead of 34 inches, for the valid water right allotment within CRP lands. The "TOTAL 1" row in Table 8 represents the "actual use" estimate with zero allotment to CRP. The "TOTAL 2" row more closely represents the water right which has not been relinquished, however other relinquishment exemptions must be considered besides CRP enrollment.

Table 8 Analysis. In looking at Table 8, the year 1998 use is the highest at 2102 af/yr. The years 1997 and 1999 are the next highest at 1938 and 1835 af/yr, respectively. In subsequent years, there is a fairly significant reduction in usage by this estimate method. A question for analysis is whether reductions in use during this time period are exempt from relinquishment. Table 9 summarizes factual circumstances related to exemption from relinquishment.

Year	Non-Use	Reason
2000	1. Well 6 pump not run for 2000 season. (Repaired for 2001 season.)	1. Mechanical problems with well pump. Statutory exemption due to lack of available water from the well. RCW 90.14.140(1)(a).
	2. 120.6 acres not irrigated.	2. Former irrigated lands enrolled in CRP. RCW 90.14.140(1)(e).
2001	1. Well 3 not used from 5/1 to 9/30. Potato acres reduced and fallowed acres increased. The remaining water rights were put to use on crops as given in Table 4.	1. Power buyback from electrical utility to free up power resources for irrigation and other uses as administered by utility. RCW 90.14.140(1)(h).
	2. Non-use due to fallowing and low duty crop use in rotation for potatoes according to sound farm practices.* The remaining water rights were put to use on crops as given in Table 4.	2. Crop rotation. RCW 90.14.140(1)(k).
	3. 120.6 acres not irrigated.	3. Former irrigated lands enrolled in CRP.
2002	1. Well 3 not used from 5/1 to 9/30. Potato acres were reduced and	1. Power buyback from electrical utility to free up

Continued

	fallowed acres increased. The remaining water rights were put to use on crops as given in Table 4.	power resources for irrigation and other uses as administered by utility.		
	2. Non-use due to fallowing and low duty crop use in rotation for potatoes according to sound farm practices.* The remaining water rights were put to use on crops as given in Table 4.	2. Crop rotation.		
and demand strategy of the str	3. 120.6 acres not irrigated.	3. Former irrigated lands enrolled in CRP.		
2003	1. Non-use due to fallowing and low duty crop use in rotation for potatoes according to sound farm practices.* The remaining water rights were put to use on crops as given in Table 4.	1. Crop rotation.		
	2. 120.6 acres not irrigated.	Former irrigated lands enrolled in CRP.		

^{*}In 2001, the state legislature passed a statutory exemption from relinquishment when non-use is due to crop rotation practices.

Table 9. Relinquishment exemptions during 2000-2003.

2. HYDROGEOLOGIC INVESTIGATION

Timothy D. Reierson, P.E. conducted a hydrogeologic investigation and concluded that existing rights will not be impaired, the transfer will not cause any effects contrary to the management policy of the Odessa Subarea and the transfer will not cause pumping levels to be lowered below reasonable or feasible levels. A detailed analysis of the investigation can be found on pages 14 through 20 of the November 16th Technical Report for Phillips Ranch Corporation written by Timothy D. Reierson, P.E.



CONCLUSIONS

Flow rate divisions. The flow rate is recommended to be reduced from 4760 gpm to 4400 gpm, a reduction of 360 gpm or 7.56%. Applying this to each water right, and applying the agreed division between the parties of 56% of flow rate to WHB (2450 gpm) and 44% of flow rate to Phillips Ranch (1950 gpm), we have the water right flow rate divisions shown in Table 16.

Water Right Divisions	Beneficial Use Flow Rate	G3-01341C(A)	G3-24450C(A)	G3-01469C	
Original Rights:	4760 gpm	1206 gpm	1554 gpm	2000 gpm	
Reduction 7.56%	4400 gpm	1115 gpm	1435 gpm	1850 gpm	
56% Transfer to WHB:	2450 gpm	620 gpm	800 gpm	1030 gpm	
44% Phillips to retain:	1950 gpm	495 gpm	635 gpm	820 gpm	

Table 16. Division of recommended beneficial use flow rates by water rights.



Continued

Table 17 summarizes the final, total quantities recommended for division to the individual water rights based on beneficial use within the places of use, in the three right hand columns.

Water Right Portion	ORIGINAL REQUEST Transfer to: Warden Hutterian Brethren			RECOMMENDED: Transfer to: Warden Hutterian Brethren		
	Acres	Flow Rate	Annual Volume	Acres	Flow Rate	Annual Volume
G3-01341C(A)	527	615	791	488	620	732
G3-24450C(A)	268	777	268	240	800	216
G3-01469C	259	698	391	248	1030	223
SUBTOTALS	527	2090	1318	488	2450	1171
Water Right Portion	ORIGINAL To Remain with Phillips Ranch Corporation			RECOMMENDED: To Remain with Phillips Ranch Corporation		
	Acres	Flow Rate	Annual Volume	Acres	Flow Rate	Annual Volume
G3-01341C(A)	507	591	761	484	495	384
G3-24450C(A)	268	777	268	254	635	125
G3-01469C	483	1302	729	474	820	422
SUBTOTALS	751	2670	1877	728	1950	931

Table 17. Original and recommended division of transferable water rights between parties.

- 1) The total valid water right quantities recommended are 4400 gpm, 2102 af/yr, and 1216 acres. Table 13.
- 2) The recommended transfer quantity is 2450 gpm, 1171 af/yr for irrigation of 488 acres. Table 13.
- 3) Table 17 summarizes the recommended division of the individual rights between parties.
- 4) The original and transfer aquifer is the Grande Ronde aquifer within the Odessa Groundwater Management Subarea.
- 5) Existing rights will not be impaired by approval of the transfer.
- 6) The transfer will not cause any effects contrary to the management policy of the Odessa Groundwater Management Subarea.
- 7) The transfer will not cause pumping levels to be lowered below reasonable or feasible levels.
- 8) Stockwater and domestic water rights have not been exercised under the subject water right certificates. Such uses are supplied by a separate permit exempt well.
- 9) PR Well 7 is no longer owned or used by Phillips Ranch Corporation and may be removed as a source from Certificate G3-01469C.



RECOMMENDATIONS

e Adams County WCB recommends that this application from Phillips Ranch Corporation to Warden Hutterian Brethern be approved per the above listed board decision allowing the transfer to two points of withdrawal and per the below listed provisions and conditions.

PROVISIONS AND CONDITIONS

Use of water under this authorization shall be contingent upon the water right holder's utilization of up to date water conservation practices and maintenance of efficient water delivery systems consistent with established regulation requirements and facility capabilities.

Nothing in this authorization shall be construed as satisfying other applicable federal, state, or local statutes, ordinances, or regulations.

An approved measuring device shall be installed and maintained in accordance with RCW 90.03.360 and/ or WAC 508-64-020 through WAC508-64-040.

The amount of water granted is a maximum limit that shall not be exceeded and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required for the actual crop grown on the number of acres and the place of use specified.

This authorization to make use of public waters of the State is subject to existing rights, including any existing rights held by the United States for the benefit of Indians under treaty or otherwise.

All water wells constructed within the State shall meet the minimum standards for construction and maintenance as provided under RCW 18.104 (Washington Water Well Construction Act of 1971) and Chapter 173-160 WAC Finimum Standards for Construction and Maintenance of water Wells).

rnis well shall be cased and permanently sealed to a minimum depth of feet below land surface. Such sealing shall be performed in accordance with the provisions and standards of WAC Chapter 173-160-245 through Chapter 173-160-285 (Minimum Standards for Construction and Maintenance of Water Well).

Applications for change of water right permits and certificates are governed by RCW 90.44.100, which states in part that: the holder of a valid right to withdraw public ground waters may, without losing his priority of right, construct wells at a new location in substitution for, or in addition to, those at the original location, or he may change the manner or the place of use of the water. Such amendment shall be issued by the Department only on the conditions that; (1) the additional or substitute well or wells shall tap the same body of public ground water as the original well or wells; (2) use of the original well or wells shall be discontinued upon construction of the substitute well or wells; (3) the construction of an additional well or wells shall not enlarge the right conveyed by the original permit or certificate; and (4) other existing rights shall not be impaired. The Department may specify an approved manner of construction and shall require a showing of compliance with the terms of the amendment.

The proposed project lies within the boundaries of the Odessa Sub-area as defined in Chapter 173-128A WAC. The Odessa Sub-area encompasses approximately 2000 square miles. The relatively flat-lying land surface slopes in a southwesterly direction and is locally dissected by coulees. Basalt aquifers of the Odessa Sub-area are part of a large ground water reservoir occurring in a thick series of basalt flows known as the Columbia River Basalt Group. The thickness of the basalt's varies from a few hundred feet at the Spokane River to over 10,000 feet in the Pasco Basin. The wells associated with this change application are all producing water from the same aquifer system and as such, they are all producing water from the same body of public groundwater.

Access port, airline and pressure gauge shall be properly installed and maintained in working order. The recipient of the above listed transfer will comply with WAC 16-202-1001 regarding chemigation and WAC 16-202-2002 regarding fertigation.

The following hydrogeologic analysis for the Warden Hutterian Brethren was conducted by Mark Ader, Washington Licensed Geologist. This hydrogeologic analysis is on file in a memo dated December 10, 2004 and includes following information:

Hydrogeologic Analysis

Applications for change of water right permits and certificates are governed by RCW 90.44.100, which states in part that: the holder of a valid right to withdraw public ground waters may, without losing his priority of right, construct wells at a new location in substitution for, or in addition to, those at the original location, or he may change the manner or the place of use of the water. Such amendment shall be issued by the Department only on the conditions that; (1) the additional or substitute well or wells shall tap the same body of public ground water as the original well or wells; (2) use of the original well or wells shall be discontinued upon construction of the substitute well or wells; (3) the construction of an additional well or wells shall not enlarge the right conveyed by the original permit or certificate; and (4) other existing rights shall not be impaired. The Department may specify an approved manner of construction and shall require a showing of compliance with the terms of the amendment.

The proposed project lies within the boundaries of the Odessa Sub-area as defined in Chapter 173-128A WAC. The Odessa Sub-area encompasses approximately 2000 square miles. The relatively flat-lying land surface slopes in a southwesterly direction and is locally dissected by coulees.

Basalt aquifers of the Odessa Sub-area are part of a large ground water reservoir occurring in a thick series of basalt flows known as the Columbia River Basalt Group. The thickness of the basalt's varies from a few hundred feet at the Spokane River to over 10,000 feet in the Pasco Basin. The wells associated with this change application are all producing water from the same aquifer system and as such, they are all producing water from the same body of public groundwater.

The Minimum Standards For Construction and Maintenance of Wells, Chapter 173-160 WAC and the Odessa Subarea regulations 173-130A WAC contain certain construction requirements which must be met The minimum well construction standards do not allow for interaquifer transfer of water. Therefore, the wells in the East Project will need to be constructed in a manner to prohibit interaquifer transfer of water (down hole flow or in some cases up hole flow). The minimum well construction standards and the Odessa regulation also require that wells be constructed as to prohibit cascading waters-Warden Hutterian Water Rights G3-21182C, G3-21183C & G3-23919C Well Locations: All within T. 17 N.. R. 31 E.W.M.

Well # 1 - Located 1500 feet north and 100 feet east from the SW corner of Section 13, within the SW½. According to the well report on file with the Department this well is 1164 feet deep and cased to a depth of 23 feet with 20-inch casing. The well was constructed in 1975. The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for Well # 1 (SW1/4 of Sec. 13, T. 17 N., R. 31 E.W.M.) is 800' above MSL. With a land surface elevation of 1200 feet above mean sea level (MSL), this puts the top of the Grande Ronde at 400' below land surface. This well shall be cased and sealed to a minimum depth of 600 feet below land surface. The annular space shall be a minimum of four inches greater than the permanent casing. Neat cement shall be used as the sealing material. It shall be placed from the bottom of the casing to the top.

Well #2 - Located 200 feet north and 200 feet east from the S1/4 comer of Section 11, within the SW1/4SE1/4. According to the well report on file with the Department this well is 1130 feet deep and cased to a depth of 30 feet

with 20-inch casing. The well was constructed in 1976. The casing and sealing depth for Well # 2 (SW1/4SE1/4 of Sec. 11, T. 17 N., R. 31 E.W.M.) was calculated from the top of the Grande Ronde as determined by the U. S. Geological Survey through their RASA study. This well shall be cased and sealed to a minimum depth of 645 feet below land surface. The annular space shall be a minimum of four inches greater than the permanent casing. Neat cement shall be used as the sealing material. It shall be placed from the bottom of the casing to the top.

Well #3 - Located 300 feet north and 100 feet west from the center of Section 14, within the SE1/4NW1/4. According to information supplied to the Department of Ecology by the Adams County Water Conservancy Board this well is 1116 feet deep. According to the well report on file with the Department the well is 770 feet deep and cased to a depth of 54 feet and 8-inches with 20-inch casing. The well is lined to a depth of 128 feet with a 16-inch liner. The well was constructed in 1975. The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for Well # 3

(SE1/4NW1/4 of Sec. 14, T. 17 N., R. 31 E.W.M.) is 800 feet above MSL. With a land surface elevation of 1200 feet above mean sea level (MSL), this puts the top of the Grande Ronde at 400 feet below land surface. This well shall be cased and sealed to a minimum depth of 600 feet below land surface. The annular space shall be a minimum of four inches greater than the permanent casing. Neat cement shall be used as the sealing material. It shall be placed from the bottom of the casing to the top.

The Kent well, located 425 feet South and 40 feet East of the N1/4 Corner of Section 34, T. 17 N., R. 31 E.W.M. Tins well was drilled by BJ Exploration in April 2003 is cased and sealed to a depth of 840 feet according to the well report on file with the Department of Ecology. This well appears to be properly constructed.

Two potential additional well sites were requested as a part of this change application. Those sites are evaluated as follows:

A new well located within the NW1/4NW1/4 of Section 25, The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for a new well (NW1/4NW 1/4. of Sec. 25, T. 17 N., R. 31 E.W.M.) is 790 feet above MSL. With a land surface elevation of 1550 feet above mean sea level (MSL), this puts the top of the Grande Ronde at 760 feet below land surface. This well shall be cased and sealed to a minimum depth of 960 feet below land surface. The annular space shall be a minimum of four inches greater than the permanent casing. Neat cement shall be used as the sealing material. It shall be placed from the bottom of the casing to the top.

A new well located within the SE1/4SE1/4 of Section 25. The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for a new well (SE1/4SE1/4 of Sec. 25, T. 17 N., R. 31 E.W.M.) is 790 feet above MSL. With a land surface elevation of 1500 feet above mean sea level (MSL), this puts the top of the Grande Ronde at 710 feet below land surface. This well shall be cased and sealed to a minimum depth of 910 feet below land surface. The annular space shall be a minimum of four inches greater than the permanent casing. Neat cement shall be used as the sealing material. It shall be placed from the bottom of the casing to the top.

Phillips Ranch G3-01341C (A), G3-01469C, & G3-24450C (A)

Well Locations: All within T. 16 N., R 32 E.W.M.

Well # 1 - Located within the SW1/4SW1/4SW1/4 of Section 20. According to information provided to the Department of Ecology by the Adams County Water Conservancy Board, this well is 1352 feet deep. The Department of Ecology does not have a well report on file for this well. The casing and sealing depth for Well # 1 (SW1/4SW1/4SW1/4 of Sec. 20, T. 16 N., R, 32 E.W.M.) was calculated from the top of the Grande Ronde as determined by the U. S. Geological Survey through their RASA study. This well shall be cased and sealed to a minimum depth of 1000 feet below land surface. The annular space shall be a minimum of four inches greater than the permanent casing. Neat cement shall be used as the sealing material. It shall be placed from the bottom of the casing to the top.

Well # 3 - Located 1228 feet East and 262 feet North from the center of Section 18, within SE¼SW¼NE¼. According to the well reports (construction dates of 4/73, 3/74-75 and 4/75) on file with the Department, this well is 1545 feet deep and cased to a depth of 189 feet with 20-inch casing. The well was completed in 1975. The casing and sealing depth for Well # 3 (SE¼SW¼NE¼ of Sec. 18, T. 16 N., R. 32 E.W.M.) was calculated from the top of the Grande Ronde as determined by the U. S. Geological Survey through their RASA study. This well shall be cased and sealed to a minimum depth of 1040 feet below land surface. The annular space shall be a minimum of four inches greater than the permanent casing. Neat cement shall be used as the sealing material. It shall be placed from the bottom of the casing to the top.

Well # 6 - Located 2287 feet North and 68 feet East from the SW1/4 comer of Section 30, within NW ¼NW¼SW¼. According to the well report on file with the Department this well is 1354 feet deep and cased to a depth of 34 feet with 20-inch casing. The well was constructed in 1978. The casing and sealing depth for Well # 6 (NW¼NW¼SW¼ of Sec. 30, T. 16 N., R. 32 E.W.M.) was calculated from the top of the Grande Ronde as determined by the U. S. Geological Survey through their RASA study. This well shall be cased and sealed to a minimum depth of 920 feet below land surface. The annular space shall be a minimum of four inches greater than the permanent casing. Neat cement shall be used as the sealing material. It shall be placed from the bottom of the casing to the top.

In general the casing and sealing depths of wells are based upon the relative elevations of the well head and the Wanapum and Grande Ronde aquifer systems. The Department relies on water level information that has been collected over a number of years by the U.S.G.S. and the Department of Ecology. This information tells us that in general, the hydrologic break between the Wanapum and Grande Ronde aquifer systems typically occurs 200 feet below the geologic division of formations.

The Department may require a video scan after setting of casing and sealing to determine if separation aquifers was obtained with the casing and sealing determination for each well. The Department will perform the video scans. The Department may require the Warden Hutterian Brethren to supply the video scan if the Department is not able to provide video services.

As these wells are constructed or reconstructed sealing materials shall be placed from the bottom of the well to the top until undiluted seal material returns to the surface through the annular space. After casing is sealed in place, the well may be completed by drilling out the casing until sufficient water is obtained. This is designed to assure separation of hydrologic head of the shallower Wanapum aquifer from the deeper, Grande Ronde aquifer.

Provisos:

- The annular space shall be a minimum of four inches greater than the permanent casing. Neat cement shall be used as the sealing material. The neat cement shall be placed from the bottom of the casing to the top until undiluted seal material returns to the surface through the annular space.
- The Department may require a video scan after setting of casing and sealing to determine if separation aquifers was obtained with the casing and sealing determination for each well. The Department will perform the video scans. The Department may require the Warden Hutterian Brethren to supply the video scan if the Department is not able to provide video services.
- At such time that any reconstruction is performed on the existing wells they shall be properly cased and sealed.

Signed at <u>Ritzville</u>, <u>Washington</u> This Date day of Month, Year

13th of December, 2004

Doug Muscott, Chairman of the Board Adams County Water Conservancy Board

Dennis Swinger, Board Representative

Adams County Water Conservancy Board

Chris Lyle, Board Representative

Adams County Water Conservancy Board

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For attachments not included or for more information please contact:

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